

ABSTRACT

5 A drug delivery conformal film system according to the present invention
is adapted to be compounded and applied, by medical personnel at the point of
use, to a medical device such as a cardiovascular and urology stent,
pacemaker, vascular graft, suture ring of mechanical heart valve, implantable
infusion port, implantable drug delivery pump, orthopedic hardware and
appliance, and, neurological stimulating device. The drug delivery conformal
10 film consists of one of three in vivo biocompatible; biodegradable, bio-erodable
or bioabsorbable embodiments: (1) cross-linked sodium alginate, (2) UV photo-
active polymer, or, (3) hydrogels. An implantable medical device such as the
stent or suture ring of a mechanical artificial heart valve is coated with an in
vivo biocompatible; biodegradable or bioerodable or bioabsorbable solution
15 comprising a polymer and containing a drug, the solution is cross-linked or
cured to form a film on the device immediately prior to placement in the body.
When the coated device is introduced into the body, the drug contained in the
coating is released in a local region. The invention provides a point of use in
vivo drug delivery system whereby the drug and its concentration can be
20 selected by medical personnel immediately prior to implantation of the medical
device.